Map of parcels at 41 kft on 07072018 influenced by convection 0.0 to 2.5 days earlier Squares indicate location of convectively influenced air -- influence calculated only within black box Crosses indicate locations where back trajectories from squares intersect convection Cross, square, and trajectory colors indicate elapsed time between convection and 07072018 2.5 2.0 Days Since Convection 1.5 1.0 0.5 NASA/ARC PSL Last Image Used is 0707200545 1443 Trajectories

Map of parcels at 41 kft on 07072018 influenced by convection 2.5 to 5.0 days earlier Squares indicate location of convectively influenced air -- influence calculated only within black box Crosses indicate locations where back trajectories from squares intersect convection Cross, square, and trajectory colors indicate elapsed time between convection and 07072018 5.0 4.5 Days Since Convection 4.0 3.5 3.0 2.5 NASA/ARC **PSL** Last Image Used is 0707200545 1443 Trajectories

Map of parcels at 41 kft on 07072018 influenced by convection 5.0 to 7.5 days earlier Squares indicate location of convectively influenced air -- influence calculated only within black box Crosses indicate locations where back trajectories from squares intersect convection Cross, square, and trajectory colors indicate elapsed time between convection and 07072018 7.5 7.0 Days Since Convection. 6.0 5.5 5.0 NASA/ARC **PSL** Last Image Used is 0707200545 1443 Trajectories

Map of parcels at 41 kft on 07072018 influenced by convection 7.5 to 10.0 days earlier Squares indicate location of convectively influenced air -- influence calculated only within black box Crosses indicate locations where back trajectories from squares intersect convection Cross, square, and trajectory colors indicate elapsed time between convection and 07072018 10.0 9.5 Days Since Convection 9.0 8.5 8.0 7.5 NASA/ARC **PSL** Last Image Used is 0707200545 1443 Trajectories